

PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT - RALG
COAST REGION
FORM FOUR SECONDARY EDUCATION MOCK EXAMINATION 2020

033/2A

BIOLOGY 2A
(ACTUAL PRACTICAL A)

Time: 2:30 Hours

Wednesday 19/08/2020 a.m

Instructions

1. This paper consists of **TWO (2)** questions
2. Answer **All** questions
3. Each question carries 25 marks
4. Except for diagrams that must be drawn in pencil, all writings should be in blue or black ink.
5. Cellular phones and Electronic calculators are not allowed in the examination room.
6. Write your **Examination Number** on every page of your answer booklet(s).

This paper consists of two (2) printed pages

1. You have been provided with four test tubes labeled 1, 2, 3 and 4, two beakers, measuring cylinder, test tube rack, specimen **A** and **B**, and the table reagents. Carry out experiments using procedures given below, and then answer the questions that follow;

Procedures

- i. Cut specimen **A** into small pieces.
- ii. Grind the pieces of specimen **A** by using mortar and pestle to obtain the paste.
- iii. Put the paste of specimen **A** in a beaker and then add 10mls of water to get a solution of specimen **A**.
- iv. Filter the solution of specimen **A** and put 2mls of the solution into a test tube 1 and 2.
- v. Peel specimen **B** to remove outer cover and cut it into small pieces by using knife or scarpel.
- vi. Grind the pieces of specimen **B** by using mortar and pestle to obtain the paste.
- vii. Put the paste of specimen **B** in a second beaker and then add 10mls of water to get a solution of specimen **B**.
- viii. Filter the solution of specimen **B** using sieve and put 2mls of the solution into each test tube 3 and 4.
- ix. Add 2mls of sodium hydroxide solution into test tube 1, followed by 3 drops of copper II sulphate while shaking the solution after each addition.
- x. Add 2mls of Sudan III solution into test tube 2. Shake the mixture and leave it on the test tube rack.
- xi. Add 3 drops of Iodine solution in test tube 3 and shake.
- xii. Add 2mls of benedict's solution in test tube 4 and boil the content.

Questions

- a. What is the aim of the experiment?
 - b. Based on the observation made in test tube 1, 2, 3, and 4. What are the types of food substances contained in specimen **A** and **B**?
 - c. What are other two natural sources of food substances in 'b' above?
 - d. What will be the end product of digestion of food substances obtained in 'b' above?
 - e. What are the importance of the food substances identified in specimen **A** and **B** to the human body?
2. You have been provided with specimens **J**, **K**, **L**, **M** and **N**. Study the specimens carefully, then answer the following questions;
- a. Identify the specimens **J**, **K**, **L**, **M** and **N** using their common names.
 - b. Classify specimens **J**, **K**, **L**, and **M** to phylum/Division level.
 - c. How does specimen **N** adapted to survive in its environment (desert areas)?
 - d. Draw a well labeled diagram of specimen **M**.
 - e. In what ways do kingdom belongs to specimen **J** is useful in the daily life. Give five points.

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